



**STATE OF TENNESSEE
DEPARTMENT OF HEALTH
ENVIRONMENTAL LABORATORIES**

TDH: Lab Services JRL
Lab Services - Jackson Regional Lab
Jackson, TN 38301
731-426-0686

TDH: Lab Services KRL
Lab Services - Knoxville Regional Lab
Knoxville, TN 37920
865-549-5201

TDH: Lab Services NCL
Lab Services - Nashville Central Lab
Nashville, TN 37243
615-262-6300

Sent To: Greg Denton
TDEC-WPC
6th Floor, L & C Tower Annex
401 Church Street
Nashville, TN 37243-1534

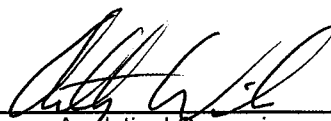
Michael Atchley
TDEC-WPC
Knoxville FO
3711 Middlebrook Pike
Knoxville, TN 37921

Lab ID: K00003009
Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Pollution Control

Billing Code: 327.34-20

This is to certify that the following results were determined using good laboratory practices and in accordance with federal or state approved methodologies.



Analytical Supervisor

Lab-Sample Number: K00003009001
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 12.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 1
Station No.: EMORY012.1RO
Date/Time Collected: 10/20/2009 12:28
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 10/20/2009 13:36
Received By: E McCrary

Field Determinations
pH: 7.47 pH Units
Chlorine, residual:
Conductivity: 48 uMHO
Temperature: 12.96
Dissolved Oxygen: 11.67 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	10/21/2009				M Pattanayek	10/21/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	170	µg/L	2.9	10	A Wilson	10/28/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	64	µg/L	6.4	10	M Pattanayek	10/21/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	10/21/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	10/21/2009
Barium	21	µg/L	2.5	5	M Pattanayek	10/21/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	10/21/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	10/21/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	10/21/2009
Cobalt	0.26J	µg/L	0.04	1	M Pattanayek	10/21/2009
Copper	U	µg/L	0.38	1	M Pattanayek	10/21/2009
Lead	0.13J	µg/L	0.10	1	M Pattanayek	10/21/2009
Manganese	37	µg/L	0.42	1	M Pattanayek	10/21/2009
Nickel	1.1	µg/L	0.25	1	M Pattanayek	10/21/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	10/21/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	10/21/2009
Thallium	0.23J	µg/L	0.03	1	M Pattanayek	10/21/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	10/21/2009
Zinc	U	µg/L	1.9	5	M Pattanayek	10/21/2009

Lab-Sample Number: K00003009001
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 12.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 1
Station No.: EMORY012.1RO
Date/Time Collected: 10/20/2009 12:28
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 10/20/2009 13:36
Received By: E McCrary

Field Determinations
pH: 7.47 pH Units
Chlorine, residual:
Conductivity: 48 uMHO
Temperature: 12.96
Dissolved Oxygen: 11.67 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.06J	µg/L	0.029	0.2	A Bass	10/27/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00003009002
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 2
Station No.: EMORY002.1RO
Date/Time Collected: 10/20/2009 10:18
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 10/20/2009 13:36
Received By: E McCrary

Field Determinations
pH: 7.36 pH Units
Chlorine, residual:
Conductivity: 46 uMHO
Temperature: 12.73
Dissolved Oxygen: 10.48 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	10/21/2009				M Pattanayek	10/21/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	330	µg/L	2.9	10	A Wilson	10/28/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	200	µg/L	6.4	10	M Pattanayek	10/21/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	10/21/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	10/21/2009
Barium	24	µg/L	2.5	5	M Pattanayek	10/21/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	10/21/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	10/21/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	10/21/2009
Cobalt	0.26J	µg/L	0.04	1	M Pattanayek	10/21/2009
Copper	U	µg/L	0.38	1	M Pattanayek	10/21/2009
Lead	0.30J	µg/L	0.10	1	M Pattanayek	10/21/2009
Manganese	32	µg/L	0.42	1	M Pattanayek	10/21/2009
Nickel	1.1	µg/L	0.25	1	M Pattanayek	10/21/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	10/21/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	10/21/2009
Thallium	0.08J	µg/L	0.03	1	M Pattanayek	10/21/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	10/21/2009
Zinc	U	µg/L	1.9	5	M Pattanayek	10/21/2009

Lab-Sample Number: K00003009002
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 2
Station No.: EMORY002.1RO
Date/Time Collected: 10/20/2009 10:18
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 10/20/2009 13:36
Received By: E McCrary

Field Determinations
pH: 7.36 pH Units
Chlorine, residual:
Conductivity: 46 uMHO
Temperature: 12.73
Dissolved Oxygen: 10.48 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	10/27/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00003009003
Project Name: TVA-Ash Spill
Sample Description: Approx 100' d/s from middle dredge point
Sampler Project Name: TVA Ash Spill
Project Site No.: 2A
Station No.: Dredge Plume
Date/Time Collected: 10/20/2009 10:36
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 10/20/2009 13:36
Received By: E McCrary

Field Determinations
pH: 7.11 pH Units
Chlorine, residual:
Conductivity: 45 uMHO
Temperature: 12.84
Dissolved Oxygen: 10.30 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	10/21/2009				M Pattanayek	10/21/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	430	µg/L	2.9	10	A Wilson	10/28/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	430	µg/L	6.4	10	M Pattanayek	10/21/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	10/21/2009
Arsenic	3.8J	µg/L	0.93	5	M Pattanayek	10/21/2009
Barium	38	µg/L	2.5	5	M Pattanayek	10/21/2009
Beryllium	0.13J	µg/L	0.11	1	M Pattanayek	10/21/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	10/21/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	10/21/2009
Cobalt	0.46J	µg/L	0.04	1	M Pattanayek	10/21/2009
Copper	1.4	µg/L	0.38	1	M Pattanayek	10/21/2009
Lead	0.68J	µg/L	0.10	1	M Pattanayek	10/21/2009
Manganese	36	µg/L	0.42	1	M Pattanayek	10/21/2009
Nickel	1.5	µg/L	0.25	1	M Pattanayek	10/21/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	10/21/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	10/21/2009
Thallium	0.09J	µg/L	0.03	1	M Pattanayek	10/21/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	10/21/2009
Zinc	2.3J	µg/L	1.9	5	M Pattanayek	10/21/2009

Lab-Sample Number: K00003009003
Project Name: TVA-Ash Spill
Sample Description: Approx 100' d/s from middle dredge point
Sampler Project Name: TVA Ash Spill
Project Site No.: 2A
Station No.: Dredge Plume
Date/Time Collected: 10/20/2009 10:36
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 10/20/2009 13:36
Received By: E McCrary

Field Determinations
pH: 7.11 pH Units
Chlorine, residual:
Conductivity: 45 uMHO
Temperature: 12.84
Dissolved Oxygen: 10.30 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.03J	µg/L	0.029	0.2	A Bass	10/27/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00003009004
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.9 at underwater weir
Sampler Project Name: TVA Ash Spill
Project Site No.: 2B
Station No.: EMORY001.9RO
Date/Time Collected: 10/20/2009 10:48
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 10/20/2009 13:36
Received By: E McCrary

Field Determinations
pH: 7.16 pH Units
Chlorine, residual:
Conductivity: 48 uMHO
Temperature: 13.01
Dissolved Oxygen: 10.30 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	10/21/2009				M Pattanayek	10/21/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	480	µg/L	2.9	10	A Wilson	10/28/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	600	µg/L	6.4	10	M Pattanayek	10/21/2009
Antimony	0.47J	µg/L	0.33	1	M Pattanayek	10/21/2009
Arsenic	5.4	µg/L	0.93	5	M Pattanayek	10/21/2009
Barium	50	µg/L	2.5	5	M Pattanayek	10/21/2009
Beryllium	0.16J	µg/L	0.11	1	M Pattanayek	10/21/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	10/21/2009
Chromium	2.4J	µg/L	2.0	5	M Pattanayek	10/21/2009
Cobalt	0.63J	µg/L	0.04	1	M Pattanayek	10/21/2009
Copper	2.0	µg/L	0.38	1	M Pattanayek	10/21/2009
Lead	0.92J	µg/L	0.10	1	M Pattanayek	10/21/2009
Manganese	36	µg/L	0.42	1	M Pattanayek	10/21/2009
Nickel	1.8	µg/L	0.25	1	M Pattanayek	10/21/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	10/21/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	10/21/2009
Thallium	0.11J	µg/L	0.03	1	M Pattanayek	10/21/2009
Vanadium	4.3J	µg/L	3.4	5	M Pattanayek	10/21/2009
Zinc	3.0J	µg/L	1.9	5	M Pattanayek	10/21/2009

Lab-Sample Number: K00003009004
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.9 at underwater weir
Sampler Project Name: TVA Ash Spill
Project Site No.: 2B
Station No.: EMORY001.9RO
Date/Time Collected: 10/20/2009 10:48
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 10/20/2009 13:36
Received By: E McCrary

Field Determinations
pH: 7.16 pH Units
Chlorine, residual:
Conductivity: 48 uMHO
Temperature: 13.01
Dissolved Oxygen: 10.30 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	ML	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	10/27/2009

J - Estimated value between MDL and ML

MDL - Method Detection Limit

ML - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00003009005
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA Ash Spill
Project Site No.: 3
Station No.: EMORY001.7RO
Date/Time Collected: 10/20/2009 11:02
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 10/20/2009 13:36
Received By: E McCrary

Field Determinations
pH: 7.11 pH Units
Chlorine, residual:
Conductivity: 47 uMHO
Temperature: 13.03
Dissolved Oxygen: 10.32 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	10/21/2009				M Pattanayek	10/21/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	420	µg/L	2.9	10	A Wilson	10/28/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	420	µg/L	6.4	10	M Pattanayek	10/21/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	10/21/2009
Arsenic	3.5J	µg/L	0.93	5	M Pattanayek	10/21/2009
Barium	36	µg/L	2.5	5	M Pattanayek	10/21/2009
Beryllium	0.11J	µg/L	0.11	1	M Pattanayek	10/21/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	10/21/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	10/21/2009
Cobalt	0.44J	µg/L	0.04	1	M Pattanayek	10/21/2009
Copper	1.2	µg/L	0.38	1	M Pattanayek	10/21/2009
Lead	0.75J	µg/L	0.10	1	M Pattanayek	10/21/2009
Manganese	35	µg/L	0.42	1	M Pattanayek	10/21/2009
Nickel	1.5	µg/L	0.25	1	M Pattanayek	10/21/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	10/21/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	10/21/2009
Thallium	0.08J	µg/L	0.03	1	M Pattanayek	10/21/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	10/21/2009
Zinc	2.5J	µg/L	1.9	5	M Pattanayek	10/21/2009

Lab-Sample Number: K00003009005
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA Ash Spill
Project Site No.: 3
Station No.: EMORY001.7RO
Date/Time Collected: 10/20/2009 11:02
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 10/20/2009 13:36
Received By: E McCrary

Field Determinations
pH: 7.11 pH Units
Chlorine, residual:
Conductivity: 47 uMHO
Temperature: 13.03
Dissolved Oxygen: 10.32 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	10/27/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00003009006
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 0.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 4
Station No.: EMORY000.1RO
Date/Time Collected: 10/20/2009 11:20
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 10/20/2009 13:36
Received By: E McCrary

Field Determinations
pH: 7.08 pH Units
Chlorine, residual:
Conductivity: 50 uMHO
Temperature: 13.71
Dissolved Oxygen: 10.06 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	10/21/2009				M Pattanayek	10/21/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	430	µg/L	2.9	10	A Wilson	10/28/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	420	µg/L	6.4	10	M Pattanayek	10/21/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	10/21/2009
Arsenic	3.6J	µg/L	0.93	5	M Pattanayek	10/21/2009
Barium	36	µg/L	2.5	5	M Pattanayek	10/21/2009
Beryllium	0.11J	µg/L	0.11	1	M Pattanayek	10/21/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	10/21/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	10/21/2009
Cobalt	0.46J	µg/L	0.04	1	M Pattanayek	10/21/2009
Copper	1.3	µg/L	0.38	1	M Pattanayek	10/21/2009
Lead	0.74J	µg/L	0.10	1	M Pattanayek	10/21/2009
Manganese	34	µg/L	0.42	1	M Pattanayek	10/21/2009
Nickel	1.8	µg/L	0.25	1	M Pattanayek	10/21/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	10/21/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	10/21/2009
Thallium	0.07J	µg/L	0.03	1	M Pattanayek	10/21/2009
Vanadium	3.4J	µg/L	3.4	5	M Pattanayek	10/21/2009
Zinc	2.1J	µg/L	1.9	5	M Pattanayek	10/21/2009

Lab-Sample Number: K00003009006
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 0.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 4
Station No.: EMORY000.1RO
Date/Time Collected: 10/20/2009 11:20
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 10/20/2009 13:36
Received By: E McCrary

Field Determinations
pH: 7.08 pH Units
Chlorine, residual:
Conductivity: 50 uMHO
Temperature: 13.71
Dissolved Oxygen: 10.06 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MLQ	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	10/27/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00003009007
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 0.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 4FD
Station No.: EMORY000.1RO
Date/Time Collected: 10/20/2009 11:20
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 10/20/2009 13:36
Received By: E McCrary

Field Determinations
pH: 7.08 pH Units
Chlorine, residual:
Conductivity: 50 uMHO
Temperature: 13.71
Dissolved Oxygen: 10.06 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	10/21/2009				M Pattanayek	10/21/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	400	µg/L	2.9	10	A Wilson	10/28/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	350	µg/L	6.4	10	M Pattanayek	10/21/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	10/21/2009
Arsenic	3.0J	µg/L	0.93	5	M Pattanayek	10/21/2009
Barium	35	µg/L	2.5	5	M Pattanayek	10/21/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	10/21/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	10/21/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	10/21/2009
Cobalt	0.43J	µg/L	0.04	1	M Pattanayek	10/21/2009
Copper	1.1	µg/L	0.38	1	M Pattanayek	10/21/2009
Lead	0.62J	µg/L	0.10	1	M Pattanayek	10/21/2009
Manganese	38	µg/L	0.42	1	M Pattanayek	10/21/2009
Nickel	1.5	µg/L	0.25	1	M Pattanayek	10/21/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	10/21/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	10/21/2009
Thallium	0.07J	µg/L	0.03	1	M Pattanayek	10/21/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	10/21/2009
Zinc	1.9J	µg/L	1.9	5	M Pattanayek	10/21/2009

Lab-Sample Number: K00003009007
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 0.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 4FD
Station No.: EMORY000.1RO
Date/Time Collected: 10/20/2009 11:20
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 10/20/2009 13:36
Received By: E McCrary

Field Determinations
pH: 7.08 pH Units
Chlorine, residual:
Conductivity: 50 uMHO
Temperature: 13.71
Dissolved Oxygen: 10.06 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.03J	µg/L	0.029	0.2	A Bass	10/27/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00003009008
Project Name: TVA-Ash Spill
Sample Description: Clinch River mile 2.3
Sampler Project Name: TVA Ash Spill
Project Site No.: 5
Station No.: CLINC002.3RO
Date/Time Collected: 10/20/2009 11:40
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 10/20/2009 13:36
Received By: E McCrary

Field Determinations
pH: 7.59 pH Units
Chlorine, residual:
Conductivity: 201 uMHO
Temperature: 14.76
Dissolved Oxygen: 9.03 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	10/21/2009				M Pattanayek	10/21/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	190	µg/L	2.9	10	A Wilson	10/28/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	120	µg/L	6.4	10	M Pattanayek	10/21/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	10/21/2009
Arsenic	1.0J	µg/L	0.93	5	M Pattanayek	10/21/2009
Barium	30	µg/L	2.5	5	M Pattanayek	10/21/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	10/21/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	10/21/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	10/21/2009
Cobalt	0.18J	µg/L	0.04	1	M Pattanayek	10/21/2009
Copper	0.39J	µg/L	0.38	1	M Pattanayek	10/21/2009
Lead	0.23J	µg/L	0.10	1	M Pattanayek	10/21/2009
Manganese	33	µg/L	0.42	1	M Pattanayek	10/21/2009
Nickel	1.2	µg/L	0.25	1	M Pattanayek	10/21/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	10/21/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	10/21/2009
Thallium	0.03J	µg/L	0.03	1	M Pattanayek	10/21/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	10/21/2009
Zinc	U	µg/L	1.9	5	M Pattanayek	10/21/2009

Lab-Sample Number: K00003009008
Project Name: TVA-Ash Spill
Sample Description: Clinch River mile 2.3
Sampler Project Name: TVA Ash Spill
Project Site No.: 5
Station No.: CLINC002,3RO
Date/Time Collected: 10/20/2009 11:40
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 10/20/2009 13:36
Received By: E McCrary

Field Determinations
pH: 7.59 pH Units
Chlorine, residual:
Conductivity: 201 uMHO
Temperature: 14.76
Dissolved Oxygen: 9.03 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	10/27/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00003009009
Project Name: TVA-Ash Spill
Sample Description: Clinch River TVA Discharge Point
Sampler Project Name: TVA Ash Spill
Project Site No.: 5A
Station No.: KingAshOutF2
Date/Time Collected: 10/20/2009 11:53
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 10/20/2009 13:36
Received By: E McCrary

Field Determinations
pH: 7.38 pH Units
Chlorine, residual:
Conductivity: 65 uMHO
Temperature: 13.89
Dissolved Oxygen: 10.13 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	10/21/2009				M Pattanayek	10/21/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	330	µg/L	2.9	10	A Wilson	10/28/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	320	µg/L	6.4	10	M Pattanayek	10/21/2009
Antimony	0.71J	µg/L	0.33	1	M Pattanayek	10/21/2009
Arsenic	9.2	µg/L	0.93	5	M Pattanayek	10/21/2009
Barium	37	µg/L	2.5	5	M Pattanayek	10/21/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	10/21/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	10/21/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	10/21/2009
Cobalt	0.31J	µg/L	0.04	1	M Pattanayek	10/21/2009
Copper	2.3	µg/L	0.38	1	M Pattanayek	10/21/2009
Lead	0.41J	µg/L	0.10	1	M Pattanayek	10/21/2009
Manganese	34	µg/L	0.42	1	M Pattanayek	10/21/2009
Nickel	1.3	µg/L	0.25	1	M Pattanayek	10/21/2009
Selenium	2.2J	µg/L	1.3	5	M Pattanayek	10/21/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	10/21/2009
Thallium	0.08J	µg/L	0.03	1	M Pattanayek	10/21/2009
Vanadium	8.9	µg/L	3.4	5	M Pattanayek	10/21/2009
Zinc	2.4J	µg/L	1.9	5	M Pattanayek	10/21/2009

Lab-Sample Number: K00003009009
Project Name: TVA-Ash Spill
Sample Description: Clinch River TVA Discharge Point
Sampler Project Name: TVA Ash Spill
Project Site No.: 5A
Station No.: KingAshOutF2
Date/Time Collected: 10/20/2009 11:53
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 10/20/2009 13:36
Received By: E McCrary

Field Determinations
pH: 7.38 pH Units
Chlorine, residual:
Conductivity: 65 uMHO
Temperature: 13.89
Dissolved Oxygen: 10.13 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	10/27/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number:	K00003009010	Field Determinations	
Project Name:	TVA-Ash Spill	pH:	7.58 pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley F	Chlorine, residual:	
Sampler Project Name:	TVA Ash Spill	Conductivity:	246 uMHO
Project Site No.:	6	Temperature:	15.12
Station No.:	CLINC004.5RO	Dissolved Oxygen:	8.58 mg/L
Date/Time Collected:	10/20/2009 11:29	Other:	
Sampler's Name:	Geoff Klein	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:			
Date/Time Received:	10/20/2009 13:36		
Received By:	E McCrary		

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	10/21/2009				M Pattanayek	10/21/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	130	µg/L	2.9	10	A Wilson	10/28/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	62	µg/L	6.4	10	M Pattanayek	10/21/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	10/21/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	10/21/2009
Barium	30	µg/L	2.5	5	M Pattanayek	10/21/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	10/21/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	10/21/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	10/21/2009
Cobalt	0.16J	µg/L	0.04	1	M Pattanayek	10/21/2009
Copper	U	µg/L	0.38	1	M Pattanayek	10/21/2009
Lead	0.20J	µg/L	0.10	1	M Pattanayek	10/21/2009
Manganese	38	µg/L	0.42	1	M Pattanayek	10/21/2009
Nickel	1.2	µg/L	0.25	1	M Pattanayek	10/21/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	10/21/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	10/21/2009
Thallium	U	µg/L	0.03	1	M Pattanayek	10/21/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	10/21/2009
Zinc	U	µg/L	1.9	5	M Pattanayek	10/21/2009

Lab-Sample Number:	K00003009010	Field Determinations	
Project Name:	TVA-Ash Spill	pH:	7.58 pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley f	Chlorine, residual:	
Sampler Project Name:	TVA Ash Spill	Conductivity:	246 uMHO
Project Site No.:	6	Temperature:	15.12
Station No.:	CLINC004.5RO	Dissolved Oxygen:	8.58 mg/L
Date/Time Collected:	10/20/2009 11:29	Other:	
Sampler's Name:	Geoff Klein	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:			
Date/Time Received:	10/20/2009 13:36		
Received By:	E McCrary		

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	10/27/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected



**STATE OF TENNESSEE
DEPARTMENT OF HEALTH
ENVIRONMENTAL LABORATORIES**

TDH: Lab Services JRL
Lab Services - Jackson Regional Lab
Jackson, TN 38301
731-426-0686

TDH: Lab Services KRL
Lab Services - Knoxville Regional Lab
Knoxville, TN 37920
865-549-5201

TDH: Lab Services NCL
Lab Services - Nashville Central Lab
Nashville, TN 37243
615-262-6300

Sent To: Greg Denton
TDEC-WPC
6th Floor, L & C Tower Annex
401 Church Street
Nashville, TN 37243-1534


Michael Atchley
TDEC-WPC
Knoxville FO
3711 Middlebrook Pike
Knoxville, TN 37921

Lab ID: K00003009
Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Pollution Control

Billing Code: 327.34-20

This is to certify that the following results were determined using
good laboratory practices and in accordance with federal or state
approved methodologies.


Analytical Supervisor

Lab-Sample Number: K00003009001
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 12.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 1
Station No.: EMORY012.1RO
Date/Time Collected: 10/20/2009 12:28
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 10/20/2009 13:36
Received By: E McCrary

Field Determinations
pH: 7.47 pH Units
Chlorine, residual:
Conductivity: 48 uMHO
Temperature: 12.96
Dissolved Oxygen: 11.67 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	15	mg/L	3.8	10	M Chen	10/27/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	22	mg/L	0.7	1	M Chen	10/27/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	10/21/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	10/23/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00003009002
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 2
Station No.: EMORY002.1RO
Date/Time Collected: 10/20/2009 10:18
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 10/20/2009 13:36
Received By: E McCrary

Field Determinations
pH: 7.36 pH Units
Chlorine, residual:
Conductivity: 46 uMHO
Temperature: 12.73
Dissolved Oxygen: 10.48 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	16	mg/L	3.8	10	M Chen	10/27/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	20	mg/L	0.7	1	M Chen	10/27/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	10/21/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	10/23/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00003009003
Project Name: TVA-Ash Spill
Sample Description: Approx 100' d/s from middle dredge point
Sampler Project Name: TVA Ash Spill
Project Site No.: 2A
Station No.: Dredge Plume
Date/Time Collected: 10/20/2009 10:36
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 10/20/2009 13:36
Received By: E McCrary

Field Determinations
pH: 7.11 pH Units
Chlorine, residual:
Conductivity: 45 uMHO
Temperature: 12.84
Dissolved Oxygen: 10.30 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	16	mg/L	3.8	10	M Chen	10/27/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	16	mg/L	0.7	1	M Chen	10/27/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	10/21/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	31	mg/L	10	10	A Peebles	10/23/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00003009004
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.9 at underwater weir
Sampler Project Name: TVA Ash Spill
Project Site No.: 2B
Station No.: EMORY001.9RO
Date/Time Collected: 10/20/2009 10:48
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 10/20/2009 13:36
Received By: E McCrary

Field Determinations
pH: 7.16 pH Units
Chlorine, residual:
Conductivity: 48 uMHO
Temperature: 13.01
Dissolved Oxygen: 10.30 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	16	mg/L	3.8	10	M Chen	10/27/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	18	mg/L	0.7	1	M Chen	10/27/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	10/21/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	46	mg/L	10	10	A Peebles	10/23/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00003009005
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA Ash Spill
Project Site No.: 3
Station No.: EMORY001.7RO
Date/Time Collected: 10/20/2009 11:02
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 10/20/2009 13:36
Received By: E McCrary

Field Determinations

pH: 7.11 pH Units
Chlorine, residual:
Conductivity: 47 uMHO
Temperature: 13.03
Dissolved Oxygen: 10.32 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	17	mg/L	3.8	10	M Chen	10/27/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	17	mg/L	0.7	1	M Chen	10/27/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	10/21/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	25	mg/L	10	10	A Peebles	10/23/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00003009006
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 0.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 4
Station No.: EMORY000.1RO
Date/Time Collected: 10/20/2009 11:20
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 10/20/2009 13:36
Received By: E McCrary

Field Determinations
pH: 7.08 pH Units
Chlorine, residual:
Conductivity: 50 uMHO
Temperature: 13.71
Dissolved Oxygen: 10.06 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	14	mg/L	3.8	10	M Chen	10/27/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	18	mg/L	0.7	1	M Chen	10/27/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	10/21/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	22	mg/L	10	10	A Peebles	10/23/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00003009007
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 0.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 4FD
Station No.: EMORY000.1RO
Date/Time Collected: 10/20/2009 11:20
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 10/20/2009 13:36
Received By: E McCrary

Field Determinations
pH: 7.08 pH Units
Chlorine, residual:
Conductivity: 50 uMHO
Temperature: 13.71
Dissolved Oxygen: 10.06 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	15	mg/L	3.8	10	M Chen	10/27/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	18	mg/L	0.7	1	M Chen	10/27/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	10/21/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	20	mg/L	10	10	A Peeples	10/23/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00003009008
Project Name: TVA-Ash Spill
Sample Description: Clinch River mile 2.3
Sampler Project Name: TVA Ash Spill
Project Site No.: 5
Station No.: CLINC002.3RO
Date/Time Collected: 10/20/2009 11:40
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 10/20/2009 13:36
Received By: E McCrary

Field Determinations
pH: 7.59 pH Units
Chlorine, residual:
Conductivity: 201 uMHO
Temperature: 14.76
Dissolved Oxygen: 9.03 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	93	mg/L	3.8	10	M Chen	10/27/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	80	mg/L	0.7	1	M Chen	10/27/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	10/21/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	10/23/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00003009009
Project Name: TVA-Ash Spill
Sample Description: Clinch River TVA Discharge Point
Sampler Project Name: TVA Ash Spill
Project Site No.: 5A
Station No.: KingAshOutF2
Date/Time Collected: 10/20/2009 11:53
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 10/20/2009 13:36
Received By: E McCrary

Field Determinations
pH: 7.38 pH Units
Chlorine, residual:
Conductivity: 65 uMHO
Temperature: 13.89
Dissolved Oxygen: 10.13 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	19	mg/L	3.8	10	M Chen	10/27/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	25	mg/L	0.7	1	M Chen	10/27/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	10/21/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	10/23/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00003009010	Field Determinations	
Project Name:	TVA-Ash Spill	pH:	7.58 pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley F	Chlorine, residual:	
Sampler Project Name:	TVA Ash Spill	Conductivity:	246 uMHO
Project Site No.:	6	Temperature:	15.12
Station No.:	CLINC004.5RO	Dissolved Oxygen:	8.58 mg/L
Date/Time Collected:	10/20/2009 11:29	Other:	
Sampler's Name:	Geoff Klein	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:			
Date/Time Received:	10/20/2009 13:36		
Received By:	E McCrary		

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	110	mg/L	3.8	10	M Chen	10/27/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	97	mg/L	0.7	1	M Chen	10/27/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	10/21/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	10/23/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected